UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,264	10/23/2003	Jon Cargille	MS1-1815US	1567

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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/692,264	CARGILLE ET AL.
Office Action Summary	Examiner	Art Unit	
	Charles E. Anya	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3/_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 October 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-13,15-23,25-29,31-38 and 40_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-13,15-23,25-29,31-38 and 40_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _10/20/08_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-13, 15-23, 25-29, 31-38 and 40 are pending is this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   **Claims 1-3, 5-12, 15, 18, 21-23, 25, 27-29, 31-38 and 40 are rejected under 35**

U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,157,927 issued to

Schaefer et al., in view of U.S. Pat. No. 5,835,764 issued to Platt et al.

3.   As to claim 1, Schaefer teaches interfaces, stored on one or more computer-

readable media, to be called on kernel transaction management objects, comprising:

application program interfaces (APIs) local with the transaction manager to

implement operations on a transaction object (TX) (figure 4D "…ITransaction

interface…" Col. 15 Ln. 15 – 33), the TX representing a transaction the TX being

accessible by at least one process participating in the transaction (Transaction Object

78); and

APIs local with the transaction manager to implement operations on a resource

management object (RMO) (figure 4E "…IResourceManager interface…" Col. 15 Ln. 51

– 62), the RMO representing a relationship between a TX associated with the

transaction manager and at least one resource that participates in the transaction

(Resource Manager Object 108), the resource capable of storing data in a durable state

("…data base…" Col. 12 Ln. 43 – 44, figure 5 "…CRM record…" Col. 22 Ln. 1 – 67) and

APIs local with the transaction manager to implement operations on a enlistment

(EN) object (figure 4C "…ITransactionEnlistAsync interface and an IPrepareInfo

interface…" Col. 16 Ln. 54 – 67), the EN representing a relationship between a resource

manager and the transaction (Enlistment Object 80).

Schaefer is silent with reference to a transaction manager located in a kernel and

operable to implement operations in the kernel.

Platt teaches a transaction manager located in a kernel and operable to

implement operations in the kernel ("…Transaction Manager…is integrated as part the

base operating system…" Col. 4 Ln. 6 – 15, Col. 7 Ln. 27 – 40, "…transactional

kernel…" Col. 8 Ln. 10 – 19, "…TuK…" Col. 11 Ln. 31 – 35).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teaching of the system of Schaefer with the teaching

of Platt because the teaching of Platt would improve the system of Schaefer by

providing full operating system functionality whilst at the same time providing high

performance transactional processing system (Platt Col. 7 Ln. 28 – 40).

4.   As to claim 2, Schaefer teaches interfaces according to claim 1, wherein each of

the APIs to implement operations on the TX, the RMO, and the EN utilize a handle to

refer to an object ("...pointer..." Col. 15 Ln. 20 – 33, Col. 22 Ln. 45 – 51).

5.   As to claim 3, Schaefer teaches interfaces according to claim 2, wherein each of

the handles is an opaque reference to a unique object ("...pointer..." Col. 15 Ln. 20 –

33).

6.   As to claim 5, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the TX to transmit a prepare request to resource managers

enlisted in a transaction ("...PrepareRequest..." Col. 16 Ln. 64 – 67).

7.   As to claim 6, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for a new TX to be created for a transaction ("...creates..." Col. 15

Ln. 15 – 20).

8.   As to claim 7, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the TX to be opened for a transaction ("...tpconnect..." Col. 12

Ln. 63 – 67, Col. 13 Ln. 11 – 19, Col. 14 Ln. 59 – 67, Col. 25 Ln. 40 – 59).

9.   As to claim 8, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the TX to commit a transaction ("…CommitRequest…" Col. 16

Ln. 18 – 42).

10.   As to claim 9, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the TX to abort a transaction ("…AbortRequest…" Col. 16 Ln.

18 – 42).

11.   As to claim 10, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the TX to save a current state of the transaction ("…commit…"

Col. 13 Ln. 1 – 10, Col. 14 Ln. 35 – 40).

12.   As to claim 11, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the TX to retrieve information about the TX for a requestor

("…GetTransactionInfo method…" Col. 15 Ln. 28 – 31).

13.   As to claim 12, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the TX to set information ("…SetComplete() method…" Col. 25

Ln. 46 – 50).

14.   As to claim 15, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for a new RMO to be created ("…created…" Col. 15 Ln. 8 – 17).

15.   As to claim 18, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the RMO to open for a transaction ("...tpconnect..." Col. 12 Ln.

63 – 67, Col. 13 Ln. 11 – 19, Col. 14 Ln. 59 – 67, Col. 25 Ln. 40 – 59).

16.   As to claim 21, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the RMO to set information ("...Enlist method...Reenlist

method..." Col. 15 Ln. 51 – 62).

17.   As to claim 22, Schaefer teaches interfaces according to claim 2, wherein at least

one of the API calls for the RMO to be enlisted on a transaction at least once ("...Enlist

method..." Col. 15 Ln. 51 – 62, Col. 16 Ln. 8 – 17).

18.   As to claim 23, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for a notification from a resource manager for the RMO

("...ReenlistmentComplete method..." Col. 15 Ln. 51 – 62).

19.   As to claim 25, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs is to implement operations on the TX by the RMO

("...IResourceManager interface..." Col. 15 Ln. 51 – 62).

20.   As to claim 27, Schaefer teaches interfaces according to claim 25, wherein the at

least one of the APIs is to inform the TX that transaction preparation has been

completed by a requested resource manager ("...PrepareRequestDone..." Col. 16 Ln.

16 Ln. 60 – 67).

21.   As to claim 28, Schaefer teaches interfaces according to claim 25, wherein the at

least one of the APIs is to inform the TX that a resource manager has completed rolling

back a transaction ("...AbortRequestDone..." Col. 17 Ln. 1 – 6, Col. 18 Ln. 21 – 25).

22.   As to claim 29, Schaefer teaches interfaces according to claim 25, wherein the at

least one of the APIs is to inform the TX that a resource manager has committed to a

transaction ("...CommitRequestDone method..." Col. 17 Ln. 1 – 3).

23.   As to claim 31, Schaefer teaches interfaces according to claim 2, wherein least

one of the APIs calls for a resource manager to be registered as a communications

resource manager for a particular protocol (Resource Manager 70 Col. 13 Ln. 21 – 28,

Col. 15 Ln. 4 – 8).

24.   As to claim 32, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for a representation of a transaction to be serialized into a buffer

("...encoding and decoding..." Col. 14 Ln. 50 – 54).

25.   As to claim 33, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for information representing registered protocols to be serialized

into a buffer ("…encoding and decoding…" Col. 14 Ln. 50 – 54).

26.   As to claim 34, Schaefer teaches interfaces according to claim 32, wherein at

least one of the APIs calls for a transaction represented by the serialization be made

available by a transaction management object ("…encoding and decoding…" Col. 14

Ln. 50 – 54).

27.   As to claim 35, Schaefer teaches interfaces according to claim 2, wherein at least

one of the APIs calls for a transaction to be propagated to a destination using push-style

propagation ("…propagate information…" Col. 15 Ln. 63 – 67).

28.   As to claim 36, Schaefer teaches interfaces according to claim 35, wherein at

least one of the APIs calls for the output of the API calls for the transaction to be

propagated to a destination using push-style propagation to be retrieved

("…propagate…" Col. 27 Ln. 64 – 67).

29.   As to claim 37, Schaefer teaches interfaces according to claim 31, wherein at

least one of the APIs is called when transaction propagation has been completed

("…CommitRequestDone method…" Col. 17 Ln. 1 – 3, "…Commit Complete

Indication…" Col. 18 Ln. 16 – 20, "…hptpx_commit_complete…" Col. 31 Ln. 20 – 35).

30.   As to claim 38, Schaefer teaches interfaces according to claim 31, wherein at

least one of the APIs is called when requested transaction propagation has failed

("…AbortRequest method…" Col. 18 Ln. 7 – 25).

31.   As to claim 40, Schaefer teaches an apparatus for implementing a transaction,

comprising:

        a transaction object (TX) to represent a transaction and the TX being accessible

by at least one process participating in the transaction (Transaction Object 78 Col. 15

Ln. 15 – 33);

        a resource manager object (RMO) to represent a relationship between a TX

associated with a transaction manager and at least one resource that participates in the

transaction (Resource Manager Object 108 Col. 15 Ln. 51 – 62, Col. 16 Ln. 8 – 17), the

resource being an entity capable of storing data in a durable state (figure 5 "…CRM

record…" Col. 22 Ln. 1 – 67); and

        a enlistment object (EN) to represent a relationship between a resource manager

and the transaction(Enlistment Object 80 Col. 16 LN. 54 – 67), wherein two-phase

commit processing is executed by calling application program interfaces (APIs) on the

TX, the RMO, and the EN, the APIs is local with the transaction manager

("…ITransaction interface…" Col. 15 Ln. 27 – 33, IResourceManagerFactory

interface…" Col. 15 Ln. 42 – 62, "…ITransactionEnlistmentAsync interface…" Col. 16

Ln. 54 – 67).

Schaefer is silent with reference to a transaction manager located in a kernel of

an operating system.

Platt teaches a transaction manager located in a kernel of an operating system

("...Transaction Manager...is integrated as part the base operating system..." Col. 4 Ln.

6 – 15, Col. 7 Ln. 27 – 40, "...transactional kernel..." Col. 8 Ln. 10 – 19, "...TuK..." Col.

11 Ln. 31 – 35).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teaching of the system of Schaefer with the teaching

of Platt because the teaching of Platt would improve the system of Schaefer by

providing full operating system functionality whilst at the same time providing high

performance transactional processing system (Platt Col. 7 Ln. 28 – 40).

32.   Claims 4, 16, 17, 20 and 26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Pat. No. 6,157,927 issued to Schaefer et al., in view of U.S.

Pat. No. 5,835,764 issued to Platt et al. as applied to claims 2 or 15 above, and

further in view of U.S. Pat. No. 6,728,958 B1 issued to Klein et al.

33.   As to claim 4, Platt and Schaefer are silent with reference to interfaces according

to claim 2, wherein at least one of the APIs calls for the TX to transmit pre-prepare

messages to resource managers associated with a transaction.

Klein teaches to interfaces according to claim 2, wherein at least one of the APIs

calls for the TX to transmit pre-prepare messages to resource managers associated

with a transaction ("...pre-prepare notification..." Col. 2 Ln. 19 – 23, Ln. 40 – 44, Ln. 57 – 67, Col. 7 Ln. 37 – 39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Platt and Schaefer with the teaching of Klein because the teaching of Klein would improve the system of Platt and Schaefer by providing resource managers with extra "pre-prepare" processing prior to the commencement of commitment processing and supporting porting a foreign database system on the local platform by writing to a file system (Klein Col. 7 Ln. 24 – 30).

34.   As to claim 16, Klein teaches interfaces according to claim 15, wherein the new RMO is volatile ("...volatile resource manager (VRM) Col. 6 Ln. 63 – 67, Col. 7 Ln. 1 - 2).

35.   As to claim 17, Klein teaches interfaces according to claim 15, wherein the new RMO is durable ("...recoverable resource manager..." Col. 6 Ln. 63 – 67).

36.   As to claim 20, Klein teaches interfaces according to claim 2, wherein at least one of the APIs calls for the RMO to transmit information regarding the RMO to a requestor (Col. 7 Ln. 1 – 23).

37.   As to claim 26, Klein teaches interfaces according to claim 25, wherein the at

least one of the APIs is to inform the TX that pre-preparing is complete ("…ready

signal…" Col. 8 Ln. 33 – 41).

38.   **Claims 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over U.S. Pat. No. 6,157,927 issued to Schaefer et al., in view of U.S. Pat. No.

5,835,764 issued to Platt et al. as applied to claim 2 above, and further in view of

U.S. Pat. No. 6,101,527 issued to Lejeune et al.

39.   As to claim 13, Platt and Schaefer are silent with reference to interfaces

according to claim 2, wherein at least one of the APIs calls for the TX to close.

Lejeune teaches interfaces according to claim 2, wherein at least one API calls

for TX to close ("…xa_close…" Col. 5 Ln. 40 – 42).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the system of Platt and Schaefer with the teaching of

Lejeune because the teaching of Lejeune would improve the system of Platt and

Schaefer by providing a process for allowing disconnection from a resource manager

(Lejeune Col. 5 Ln. 41 – 42).

40.   As to claim 19, Lejeune teaches interfaces according to claim 2, wherein at least

one of the APIs calls for the RMO to be destroyed ("…terminate…" Col. 16 Ln. 48 – 57).

Response to Arguments

Applicant's arguments with respect to claims 1-13, 15-23, 25-29, 31-38 and 40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,266,666 B1 issued to Ireland et al.: directed to component transaction server for developing and deploying transaction intensive business applications.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is 571-272-3757. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Li B. Zhen/
Primary Examiner, Art Unit 2194

cea.